

Physics of the Solid State 2016 vol.58 N2, pages 319-324

---

## Paramagnetic resonance of LaGaO<sub>3</sub>: Mn single crystals grown by floating zone melting

Vazhenin V., Potapov A., Artyomov M., Salosin M., Fokin A., Gil'mutdinov I., Mukhamedshin I.  
*Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia*

---

### Abstract

© 2016, Pleiades Publishing, Ltd. The EPR spectrum of Mn-doped lanthanum gallate single crystals grown by floating zone melting with optical heating has been studied. In contrast to the crystals grown according to the Czochralski method, no manganese is found in these crystals even after high-temperature annealing in air. The spectral characteristics of Fe<sup>3+</sup> and Gd<sup>3+</sup> centers in crystals prepared by various methods have been compared in the rhombohedral phase, and the fourth-rank nondiagonal parameters of the Fe<sup>3+</sup> trigonal centers have been determined, as well.

<http://dx.doi.org/10.1134/S1063783416020323>

---